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"Another point that misled Lambert was the belief that his rules and definitions would cover the case of *relative* terms.¹ . . . I think it a mistake to endeavor thus to introduce relative terms; but, if we do so, we must clearly reject the law that $x^2 = x$, in the case of such terms.

"In thus realizing what Lambert had achieved, the reader must remember that he by no means stood alone. Two of his friends or correspondents—Plonquet and Holland—are worthy coadjutors; and such logical writings as they have left behind are full of interesting suggestions of a similar kind. . . . These men all took their impulse from Leibnitz and Wolf."

GIORDANO BRUNO.

TRANSLATED FROM HEGEL'S "HISTORY OF PHILOSOPHY," BY EDWIN D. MEAD.

Giordano Bruno was one of those restless, troubled, seething spirits, like Cardanus, Campanella, and Vanini, who appeared in Italy in the sixteenth century. He utterly rejected all the old catholic reliance on authority, and fell back boldly upon his own reason. His memory has been revived in these later times by Jacobi, who appended an extract from one of Bruno's works to his "Letters on Spinoza." Jacobi drew special attention to him by his assertion that the sum and substance of his doctrine was the same as Spinoza's "One and All," or pantheism—a comparison which lifts Bruno to a position really above that to which he is justly entitled.

Bruno's life was perhaps a steadier and quieter life than that of Cardanus; but he, too, had no fixed abiding place in the world. He was born at Nola, near Naples, some time in the sixteenth century, the exact year not being known.² He became a Dominican monk, but quickly had occasion to speak out upon the gross

¹ "Unter den Begriffen $M = A : B$, kommen einige vor, die sehr allgemein sind. Da-
hin rechnen wir die Begriffe; Ursache, Wirkung, Mittel, Absicht, Grund, Art, Gattung."
(Architectonik, i, 82.)

² About 1548.—Tr.

ignorance and the wicked lives of the monks, besides expressing himself very sharply and bitterly upon many of the dogmas of the church, transubstantiation, the immaculate conception of the Virgin, etc.; and, while still young, he left Italy and commenced his life of wandering about the various European countries—France, England, Germany—teaching philosophy. First, in 1582,¹ he went to Geneva; but here he incurred the displeasure of Calvin and Beza, in the same way that he had incurred the displeasure of the Italian church authorities, finding it impossible to live with them. Then he resided in various French cities, Lyons among others, finally coming to Paris, where, in 1585, he made a formal stand against the Aristotelians, proposing for public discussion, according to the custom of the times, certain philosophical theses directed especially against Aristotle. These were published in 1588, under the title: “Jord. Bruni Nol. Rationes articulorum physicorum adversus Peripateticos Parisiis propositorum, Vitebergæ apud Zachariam Cratonem,” 1588. His work, however, made no impression, the Aristotelians being still too firmly seated. Bruno also visited London, Wittenberg (in 1586), Prague, and other universities and cities. He was warmly favored and assisted by the Countess of Brunswick-Lüneburg at Helmstadt in 1589. Then he went to Frankfort-on-the-Main, where several of his works were printed. He was a wandering professor and author. At last, in 1592, he returned to Italy, lived undisturbed for a time at Padua, but was finally apprehended by the Inquisition at Venice, placed in confinement, and sent to Rome; and here, in the year 1600, refusing to retract what he had written, he was burned at the stake for heresy. He met his death, as Scioppius and other witnesses inform us, with the utmost fortitude and heroism.

Bruno had become a Protestant in Germany, and broken his vow as a monk. But among Catholics and Protestants alike his writings were pronounced heretical and atheistic, and were burned or somehow exterminated or concealed. His writings are therefore very seldom found together. The largest collection of them is in the university library at Göttingen; the most detailed account of them is to be found in Buhle’s “History of Philosophy.”

¹ Others put it as early as 1577.—Tr.

The works are generally rare in libraries, often prohibited; in Dresden they still belong among the interdicted books, and are not shown. An edition of Bruno's Italian works has recently been prepared, though it may not yet be published.¹ He wrote very much also in Latin. In every place where he stayed for any length of time, he held public lectures and wrote and published books; the fact that his different books were published in so many different places is one reason why it is so hard to get full knowledge of them. Many of his works have essentially the same content, though in somewhat varying form; and in the evolution of his thought there does not appear any regular and definite advance. What chiefly and peculiarly impresses us in his sundry and manifold writings is the beautiful inspiration of a noble soul, that feels the indwelling of the Spirit, and sees the unity of its being and all being as the total life of thought. There is something almost bacchanalian in the way in which this profound consciousness takes hold of things; it seems to overflow, in order to become its own object and describe its own wealth. But it is only by science and in the form of science that the mind can produce and express itself as a totality; when this scientific culture has not yet been attained, the mind reaches about in and after all sorts of forms, without being able to reduce them to order. It is this unordered, multifarious opulence of thought which we find in Bruno. His expositions are often obscure, confused, allegorical and mystical, sometimes extravagant and wild. Many of his writings are in verse, and in these there is much that is fantastic—as when, in his book on “The Triumphal Animal,” he says that something else had to be put in the place of the stars. Every personal interest was sacrificed to his great inspiration. This gave him no rest. It has been

¹ Bruno's Italian works, edited by Adolph Wagner, were published in Leipsic in 1830; part of the Latin works, edited by A. F. Gfrörer, in Stuttgart, in 1835. A complete edition is now in process of publication in Italy. A sufficient account of the Bruno literature may be found in the address by Thomas Davidson, published in “The Index,” February 25 and March 4, 1886. Mr. Davidson's address is itself the most interesting, profound, and important word upon Bruno which has yet been written in America or England. We are informed in this that an exhaustive work upon the life and works of Bruno is now being prepared by a distinguished English scholar. In the brief account by Hegel, here translated, Mr. Davidson recognizes the first adequate appreciation of Bruno. “From Hegel's time, Bruno has become more and more a subject of interest, reverence, and study.”—TR.

said that he was "a restless soul, out of harmony with himself." Whence this unrest? He could not harmonize himself with the finite, the bad, the vulgar. Hence his unrest. He had annihilated this separation of self-consciousness and nature, which debases both alike, and raised himself to the one universal substantiality. Men thought of God as in self-consciousness indeed, yet as coming from without, as something opposed to it, as another actuality; of nature as made by God, his creation, but not his image. The goodness or providence of God was an external thing, displayed in certain narrow finite purposes. "The bees make honey," it was said, and we still hear it said, "so that men may be fed. Cork-trees grow so that we may have stopples for our bottles."

As to Bruno's thoughts themselves—Jacobi has presented them in such a form as to imply that the doctrine of one living Being, a World-soul, permeating all things, and constituting the life of all, was something peculiar to Bruno, a special distinction of his. Bruno asserted, first, the unity of life and the universality of the World-soul, and secondly, the present, indwelling Reason. But in this certainly he was very far from being original. The doctrine is nothing but an echo of the old Alexandrian doctrine.

Two things are prominent in Bruno's writings. In the first place, his system itself in its cardinal thoughts, his philosophical principles, the idea as substantial unity; and secondly, albeit this is connected with the former, his Lullian method or art, a special hobby with him, something on which he always laid the greatest stress—a method of discovering the distinctions in the idea, a matter of the greatest moment with him.

a. His philosophical thoughts, in which he makes use in part of Aristotelian conceptions, give evidence of a peculiar, excessively active and highly original mind. He is inspired by the thought of the life of nature, the divinity, the presence of reason, in nature. Generally speaking, therefore, his philosophy is certainly Spinozism, pantheism. This separation of men from God or the world, and all their relations of externality, are made an end of in the living idea of the absolutely universal unity of all things, for the expression of which Bruno has been so much admired. The main features of his exposition of his thought are his general definition of matter and his general definition of form.

a. He defines the unity of life as the universal, active Understanding (*νοῦς*), revealing itself as the universal form of the cosmos and containing all forms in itself. In its relation to nature it is like the human understanding, forming and systematizing the things of nature as the understanding forms and systematizes conceptions. It is the interior Artist, forming and fashioning matter from within. From the interior of the root or of the seed, it shoots forth the sprouts; from these it drives forth the branches, out of these the twigs, from the interior of the twigs the buds, leaves, blossoms, fruit. Everything is planned, prepared, and perfected from within. And so, too, this universal Understanding calls its juices back from the fruits and flowers to the twigs, etc. The cosmos is an infinite animal, in which all things manifoldly live and move. The formal understanding here is not different from final cause (design, the *entelechy*, the unmoved principle of Aristotle); although it is also, this producer, the active understanding (*causa efficiens*), the mediate cause. Nature and mind are not separate; their unity is the formal understanding, in which the pure conception is contained not as known, but as free for itself, abiding in itself, as well as active, going out of itself. Understanding working according to purpose is the very inner form of things. Whatever is produced is produced conformably to this principle and comprehended under it; everything is determined according to the determination of the form in itself. We find the same thought in Proclus. The understanding, as the true substantial, is that which contains all in its one; life is the proceeding, the producing; the understanding as such is this reflection or returning, this taking back of everything into the unity. In the Kantian philosophy, we come again to the consideration of this teleological principle or conception of purpose. Organic life, whose very principle is formative, which has its efficiency in itself, and in its working only abides by itself and maintains itself—this life itself is purpose, self-determined activity, not merely related as a cause to something else, but self-related and self-returning.

β. Bruno, thus immediately identifying final and efficient cause, and making purpose the immanent life of the universe, views this purpose or final cause also as substance. He sets himself entirely against the idea of an external, extra-mundane understanding. In

substance itself he makes the distinction of form and matter. Substance as the activity of the idea is the unity of form and matter—matter is in itself alive. The abiding, in the infinite transformations of being, says Bruno, is the first absolute matter; itself without form, it is the mother of all forms and that which is capable of all forms. It is not, indeed, without the first universal form, and hence it is itself principle or final cause in itself. Form is immanent in matter, the one simply not existing without the other; so that matter itself produces these transformations, and it is the same matter that is in them all. That which was first seed becomes blade, then corn, then bread, chyle, blood, semen, embryo, man, corpse, then earth again, stone, or something else; from sand and water come frogs. Here, then, is something which, although transformed into all these various things, remains in itself ever one and the same. This matter cannot consist of bodies, for bodies are formed; nor can it belong to what we call properties, conditions, qualities—for these things are changeable and evanescent. Nothing seems eternal and worthy of the name of principle except matter. Many, therefore, have held matter to be the only real, and all forms to be accidental. This error arises from men's failure to recognize any but the secondary forms; they do not recognize that necessary first and eternal form, which is the form and source of all forms. Matter, by reason of its identity with the performing understanding, is itself ideal (*intelligibel*), as the universal presupposition of all definite corporeity. It is nothing in particular—air, water, etc.—because it is everything—the abstract; it has no dimensions, because it has all. The forms of matter are the inner power of matter itself; it is itself, as ideal, the totality of form. This system of Bruno's is objective Spinozism; his thought penetrated very deeply.

Bruno here raises the question: "How are this original universal form and this original universal matter *united and inseparable*—different, and yet one?" In his answer he uses the Aristotelian forms of *δύναμις* and *ἐνέργεια*. Matter is to be conceived as potentiality; and thus all possible being comes in some way under the conception. The passivity of matter must be conceived purely and absolutely. It is impossible to ascribe existence to a thing which lacks the potency of existence. This actual existence has such express relation to the active mode that it is immediately

evident that the one cannot be without the other, but that the two reciprocally presuppose each other. If, therefore, there always existed a capacity to act, to produce, to create, there must always have existed a capacity to be acted upon, to be produced, to be created. The complete possibility of the existence of things (matter) cannot precede their actual existence, and no more can it remain beyond that actual existence. The first and perfect principle comprises all existence in itself, has the capacity or power to be all things, and *is* all things. In it active power and potentiality, possibility, and actuality, are united as one undivided and indivisible principle. This simultaneity of active power and passivity is a very important conception: matter is nothing without activity, form is the power and inner life of matter. If matter were merely undetermined possibility, how should we arrive at the determined? This simplicity of matter is only one moment of the form; in the very attempt to disengage matter from form, it is posited in one determination of form, which immediately involves the positing of the other.

The absolute is so determined for Bruno; not so other things, which can be and also can not be, which can be determined this way or that way. In these finite things, and in the finite determinations of the understanding, the distinction of form and matter is present. The individual man is in each moment what he can be in that moment, but not what he can be altogether and in point of substance. The things which appear as distinct are only modifications of a single thing, which comprehends in its existence all other existence. The universe, however, uncreated nature, is actually and at once all that it can be because it comprehends in itself all matter together with the eternal, unchangeable form of its changing modes. But in its developments from moment to moment, in its particular parts and conditions, its particular beings, its externality, it is not what it is and can be; but such particular part is only a shadow of the image of the first principle. Bruno wrote a book "*De umbris idearum*."

γ. This is Bruno's central thought. He says further: "The effort of reason is to recognize in all things this unity of form and matter. But, in order to penetrate to this unity, to explore all the mysteries of nature, we must scrutinize and study the opposite and conflicting extremes of things, the maximum and the

minimum." It is in these extremes that they are intelligible or ideal and united in the conception; and this union is the infinite nature. "To find the point of union, however, is not the greatest thing; out of this to develop also its opposite is the peculiar and the deepest secret of the method." This recognition of the development of the idea as a necessity of determinations is a great point; we shall presently see how Bruno did this. He conceives the first principle, elsewhere called the form, as the smallest, which is at the same time the greatest, as one, which is at the same time all; the universe is this one in all. In the universe, he says, body is not distinguished from point, centre from circumference, finite from infinite, greatest from smallest. There is nothing but centre—or the centre is everywhere and in everything. The ancients expressed this by saying of the father of the gods that he has his seat in every point of the cosmos. It is the universe which gives particular things true actuality, it is the substance of all things, is monad, atom, the spirit everywhere outpoured, the entire essence, the pure form.¹

b. Bruno's second work is in connection with the Lullian art or method, so called after its inventor, the scholastic Raymond Lully—which art Bruno took up and improved, calling it his *ars combinatoria*. In one respect this art is similar to the *topic* of Aristotle, both giving a multitude of points and definitions, to be fixed in the mind as a table, with divisions and subdivisions, under which everything may be classified. Only Aristotle's *topic* was for the sake of taking hold of an object on its different sides in process of definition, while Bruno's aim was rather to facilitate the memory. He really joined the Lullian art to the art of mnemonics which prevailed among the ancients, which has been revived in recent times, and of which there is a detailed account in "Auctor ad Herennium" (Libr. III, c. 17, *sqq.*). One fixes in the mind, for instance, a certain number of departments, chosen as one pleases, say twelve, arranged in threes, and desig-

¹ Upon the antithesis of *maximum* and *minimum* Bruno wrote several special works, e. g., "De triplici Minimo et Mensura, libri V, Francofurti apud Wechelium et Fischer, 1591;" the text is in hexameters, with notes and scholia; Buhle gives the title, "De Minimo, libri V." Another work bears the title "De Monade, Numero et figura liber; Item De Innumerabilibus, Immenso et Infigurabili: seu de Universo et Mundis, libri VIII, Francofurti, 1591."

nated by certain names, as Aaron, Abimilech, Achilles, Balaam, Bartholomew, Benjamin, etc. In these departments one arranges whatever one has to learn by heart, making a series of pictures of it, so that, in repeating it, it is not necessary to speak directly from memory, or the head, as we are wont, but to read it, as it were, from tablets. The difficulty lies in making a rational connection between the real subject of my thought and the picture; the combinations are generally most vicious, and the art is a bad one. Bruno himself soon abandoned it, because the thing of memory became the thing of imagination—which is a degradation. Inasmuch, however, as Bruno's table is not only a group of external pictures, but also a system of general determinations of thought, he certainly gave the art a deeper inner significance.¹

a. Bruno comes to this art from the general ideas. Since everything is one life, one understanding, he struggles, with obscure presentiments of the truth, to grasp this universal understanding in the totality of its determinations, and subsume everything under it—to frame a *logical philosophy* based on this conception of the one life and understanding, and make it applicable to everything. He says that what philosophy has to consider is, the universe so far as it comes under the categories of the true, the knowable, and the rational. He distinguishes, like Spinoza, between the ideal thing of the reason and the actual. As the subject of metaphysics is the universal thing, which is divided into substance and accident, the highest requirement is a specific, more general art or method of so uniting the thing of reason and the actual thing, so grasping them in one conception and accrediting them as conform-

¹ Bruno composed many of these topic-mnemonic works, of which the oldest are the following: "Philotheus Jordanus Brunus Nolanus De compendiosa architectura et complemento artis Lullii, Paris. ap. Aeg. Gorbinum, 1582."—J. Brunus Nol. "De Umbris idearum implicantibus Artem quaerendi, etc., Paris. ap. Eund., 1582." The second part has the title: "Ars memoriae.—Ph. Jord. Bruni Explicatio XXX sigillorum," etc. "Quibus adjectus est Sigillus sigillorum," etc. It appears from the dedication that Bruno published it in England, therefore, between 1582 and 1585.—"Jordanus Brunus De Lampade combinatoria Lulliana, Vitebergae, 1587."—There, too, he wrote "De Progressu et lampade venatoria Logicorum, Anno 1587," dedicated to the Chancellor of the University of Wittenberg.—"Jordanus Brunus De Specierum scrutinio et lampade combinatoria, Raym. Lullii, Pragæ, exc. Georg. Nigrinus, 1588"; also printed in "Raymundi Lullii operibus."—Also "De imaginum, signorum et idearum compositione, libri III, Francofurti ap. Jo. Wechel. et Petr. Fischer, 1591."

able each to the other, that the manifold, of whatever sort, shall be restored to simple unity.

β. Bruno's principle here is the understanding—in the first place, the understanding acting outside itself, developing the sensible world. This fills the part in the illumination of the mind which the sun, in vision, fills for the eye—it illuminates the mass of objects which appear, not itself. In the second place is the active understanding in itself, which is related to the mental categories as the eye to things seen. The infinite form, the active understanding, immanent in matter, is the first, the basis, which develops itself. The process is, to a degree, the same as with the New Platonists. The essential thing with Bruno here is to conceive and demonstrate the organic processes of this active understanding.

γ. The thought is put more definitely as follows: Pure truth itself, the absolute light, man only approaches; his being is not absolute being itself, only the One and First is that. He rests only in the shadow of the Idea, which in its purity is light, but which also has the element of darkness in itself. The light of substance emanates from this pure, primal light, the light of accident from the light of substance. This is the third in the first, which we find in Proclus. This absolute principle in its unity is, according to Bruno, the primal matter, and he calls the first act of this principle the primal light (*actus primus lucis*). The many substances and accidents cannot appropriate the full light, they exist only in the shadow; the ideas of these substances and accidents are likewise shadows. The evolution of nature proceeds from moment to moment; the created things are only a shadow of the first principle, no more the principle itself.

δ. Bruno continues: From this *superessentiale*—an expression also used by Proclus—the progression to the essences takes place, from the essences the progression to that which is, from that which is to its images and shadows, and this in a twofold direction—partly toward matter to be generated in its womb (these shadows appear in a natural manner), partly toward sensibility and reason, by the power of these to be recognized. The things are in all degrees of remoteness from the primal light toward darkness. But all things in the universe are closely connected, the lower with the middle, and the middle with the higher, the compound with the simple, the simple

with the simpler, the material with the spiritual, that the universe may be one, with one order and government, that there may be one principle and purpose, one first and last; and so, in harmony with the lyre of the universal Apollo (an expression which occurs also in Heraclitus), the lower can be traced back, step by step, to the higher, as fire is transformed into air, air into water, water into earth, and *vice versa*—all having one and the same essence. The descending scale is the same as the ascending, making a circle. Nature, within its limits, can produce everything from everything; and so the understanding can recognize everything in everything.

ε. The *unity of opposites* is explained more particularly as follows: The difference of the shadows is not a real antagonism. Opposites—the beautiful and the ugly, the agreeable and the disagreeable, the perfect and imperfect, good and evil—are held in one and the same conception. The imperfect, the evil, the ugly do not have a special ground of their own, in positive ideas. They are known in and through another conception, not in an independent conception pertaining to themselves; such a conception is nothing. This peculiarity or independence of the imperfect, evil, etc., is the not-being in being, the defect in the effect. The original understanding is the primal light. It pours out its light from the innermost to the outermost, and draws it back again from the outermost to itself. Every being can appropriate some of this light, each according to its capacity.

ζ. The real in things is precisely this ideal, not the sensible, the perceived, or the individual; that which is usually called real, the sensible, is not-being. Whatever happens under the sun, whatever inhabits the realm of matter, falls under the conception of vanity and nothingness (finitude). Seek the firm ground of ideas, if thou art wise. This pure light of things is precisely their *knowableness*, having its source in the original understanding and harmonizing with it; that which has not being is not known. That which is here contrast and difference in the primal understanding is harmony and unity. Seek, therefore, whether thou canst identify the images which thou receivest, whether thou canst make them harmonious and one; so thou wilt not weary thy mind, nor obscure thy thought, nor confuse thy memory. Through the idea which is in the understanding, a thing is better comprehended than through the form of the natural thing in itself, since the latter

is more material; but comprehended most perfectly through the idea of the object as it is in the divine understanding. The distinctions which appear here are there no distinctions, but all is harmony. This thought Bruno sought to develop—urging that the determinations native to the divine understanding correspond to those which appear in the subjective understanding. Bruno's art consists in determining or defining the universal system or scheme of form, which comprehends everything, and in showing how its moments are represented and expressed in the various spheres of existence.

η. Bruno's main endeavor, therefore, was, according to the Lullian art, to exhibit the All and One as a system of regular, classified determinations. He specifies the three spheres, after the manner of Proclus: 1, the *primal form* (*ὑπερουσία*), as the originator of all forms; 2, the *physical world*, which makes impressions of the ideas upon the surface of matter and multiplies the original image in countless reflections; 3, the form of the *rational world*, which numerically individualizes the shadows of the ideas for the senses, brings them into the One, and raises them into general conceptions for the understanding. The moments of the primal form itself are *being*, *goodness* (nature or life), and *unity* (this, too, we have substantially in Proclus). In the metaphysical world, it is thing, good, principle of plurality (*ante multa*); in the physical world, it reveals itself in things, goods, individuals; in the rational world of cognition, it rises from things, goods, and individuals. The unity is what restores or brings back; and Bruno, distinguishing the natural and metaphysical worlds, seeks to frame his system of determinations so as to show at once how a thing appears in a natural manner which exists in another manner in thought or ideally.

Endeavoring to comprehend this relation more completely, Bruno views thought as a subjective art and activity of the soul, representing within, conceptually, by inner signs as it were, that which nature represents without, by outward signs. Thought, he says, is the capacity to appropriate this external handwriting of nature, as well as to reflect and actualize the internal in the external. Bruno places this art of inward thought and accordant outward organization, and *vice versa*, which the human soul possesses, in the closest and most intimate connection with the art of universal

nature, with the operation of the absolute world-principle, by which everything is formed and fashioned. It is one form which is developed; it is one and the same world-principle, which forms the minerals, plants, and animals, and which thinks and outwardly organizes in man; it only expresses itself, in its operations in the world, in infinitely varying modes. Within and without is one and the same development of one and the same principle.

These various handwritings or symbols of the soul, through which the organizing world-principle reveals itself, Bruno endeavored to define and systematize in his "*Ars Lulliana*"; and he therein adopts twelve fundamental types, classes of natural forms, as a basis: *species, formæ, simulacra, imagines, spectra, exemplaria, indicia, signa, notæ, characteres et sigilli*. Certain types are related to the external sense, like the external forms, images, and ideals (*extrinseca forma, imago, exemplar*), represented by painting and other plastic arts, imitating their mother nature. Some are related to the internal sense, in which—in respect to measure, duration, and number—they are enlarged, extended in time, and multiplied; of this sort are the creations of imagination. Some are related to a point common equally to several things; some are so discrepant with the objective constitution of things as to be utterly chimerical. Some, finally, appear to be peculiar to the art, as the *signa, notæ, characteres et sigilli*; which give the art so much power that it appears to be able to act independently of nature, beyond nature, and, if the thing involves it, even against nature."

So far, on the whole, all is well. The scheme is worked out on all sides. This attempt to exhibit the logical system of the internal Artist, the producing thought, so as to make the forms of external nature correspond to it, is deserving of all praise. But when this praise is given, and the real greatness of Bruno's conception acknowledged, it must still be said that the determinations of thought here are superficial, lifeless types, like the schemata of the philosophy of nature in recent times; he merely enumerates the moments and antitheses of the scheme, just as our philosophers of nature developed the triplicity in each separate sphere, viewed as an absolute. The points beyond, or the more determinate moments, are only heaped together by Bruno; he gets into confusion when he attempts to represent them by figures and classifications.

The twelve forms, which are made a basis, are neither deduced and united into one complete system, nor is the further multiplication deduced. Bruno wrote several works upon this point (*De Sigillis*), the exposition seeming to be different in different works; the main point is that things in their appearing, or as phenomena, are as letters and signs, corresponding to a thought. The general idea, as opposed to the Aristotelian and scholastic dispersiveness, in which each determination was only fixed independently, is certainly to be praised. But in the development of the idea he gets mixed up with the Pythagorean numbers, and is fantastic and arbitrary; in places one comes upon metaphorical and allegorical groupings and couplings, where it is utterly impossible to follow him. In this attempt to reduce everything to order, everything runs together in the wildest disorder.

But it was a great point, in the first place, to get hold of the idea of unity; and it was a great point to view the universe in its development, in the system of its determinations, and to show how the external is a sign of ideas. These two achievements distinguish Bruno in the history of thought.

NOTES AND DISCUSSIONS.

KANT ON THE INFINITE DIVISIBILITY OF SPACE.

[We reprint the following extracts from Professor John Watson's "Kant and his English Critics" (pp. 246-250). His excellent discussion of Kant's "Metaphysical Grounds of Natural Science" we have before alluded to (J. S. P., vol. xv, p. 222). The statement here given is Professor Watson's own summary of the Kantian treatise.—Ed.]

As each part of space is divisible to infinity, so also is each part of matter which occupies space. And the divisibility of matter means the physical divisibility of its parts. Each part of matter may therefore be regarded, like each material body, as a material substance divisible to infinity; for a material substance is definable as that which is movable in itself.

This proof of the infinite divisibility of matter overthrows the theory of the monadists, who suppose matter to be composed of indivisible points, and to occupy space,